REMARKS

Consideration of the above-identified application in view of the foregoing amendments and following remarks is respectfully requested. Applicants respectfully submit that this Application is in condition for allowance. If, however, the Examiner should disagree and intends to issue an Office Action rejecting one or more of the pending claims, Applicants request that an interview be scheduled to discuss the claims and the cited reference(s). Applicants firmly believe that, in that instance, an interview will facilitate prosecution of this application.

Claim Status

Claims 1, 5, 7-36, 42-71, 75, and 77-106 were pending in this application. Claims 1, 5, 10-21, 26-31, 33-36, 40, 45, 46, 61-66, 68-71, 75, 80-91, 96-101 and 103-105 were withdrawn from consideration as a result of a previous Restriction Requirement and subsequent election by Applicants. Applicants note that claims 47-56 had been withdrawn from consideration per the Office Action dated June 17, 2005, however, these claims had been referred to as pending in the prior amendments and Office Actions. Clarification of the status of these claims is requested.

Claims 7-9, 22-25, 32, 42-44, 57-60, 67, 77-79, 92-95, 102 and 106 are currently being considered and have been rejected. Of the claims under consideration, claims 32, 67, 102 and 106 are independent in form. By this paper, Applicants have amended claim 102 and have added claims 107-110. No new matter has been added.

Applicants have amended claim 102 by adding the underlined portion in "a generation unit adapted to generate a histogram for each of the plurality of blocks on the basis of

1022507 v1

the infrared image signal <u>of each block</u>." Support for this amendment can be found in the application as filed, including for example at page 33, lines 23-25.

Claims 107-110 are dependent from claims 32, 67, 102 and 106, respectively. Each recites that "said infrared image signal is not uniform for all the pixels." Support for newly added claims 107-110 can be found throughout the application as filed, including for example at page 41, line 3 to page 44, line 16.

The Office Action has rejected claims 7, 32, 42, 67, 77, 102 and 106 under 35 U.S.C. § 103(a) allegedly as being unpatentable over the combination of Edgar, U.S. Patent No. 5,266,805 ("Edgar"), Florent, U.S. Patent No. 5,832,111 ("Florent"), and Maeda et al., U.S. Publication No. 20030128889 ("Maeda"). The Office Action has rejected claims 8-9, 22-25, 43-44, 57-60, 78-79 and 92-95 under 35 U.S.C. § 103(a) allegedly as being unpatentable over the combination of Edgar and Florent as applied to claims 7, 42 and 77, and further in view of Nichani et al., U.S. Patent No. 5,949,905 ("Nichani"). Applicants respectfully disagree with the characterization of the claims and prior art in the stated rejection and respectfully traverse these rejections.

The Office Action concedes that each of the claims are novel over the prior art. With respect to independent claim 102, however, the Office Action alleges that Edgar, Florent, and Maeda can be combined to embrace the subject matter claimed.

The Office Action admits that Edgar "fails to expressly disclose a means for determining the threshold value." Since Edgar does not disclose a means for determining the threshold value, it also does not disclose the means for generating a histogram for calculating a threshold value. For these features, the Office Action relies on Florent at col. 11, lines 14-19.

1022507 v1

Applicants respectfully note that Florent does not contain a column 11 and respectfully request clarification.

The Office Action further admits that the combination of Edgar and Florent still "fails to expressly disclose performing [the processing of visible image signals and infrared image signals] on an image which has been segmented into a plurality of blocks." Rather, the Office Action points to Maeda for "disclosing segmenting an infrared image signal in a plurality of blocks and performing visible and image signal processing on the respective blocks." There is nothing, however, in any of the three references that teaches, discloses or suggests "generation unit adapted to generate a histogram for each of the plurality of blocks on the basis of the infrared image signal of each block" as recited in applicants claim 102. Moreover, there is nothing in any of the references that teaches, discloses, or suggests a "calculation unit adapted to calculate a threshold value for each of the plurality of blocks..." as recited in Applicants' claim 102.

Applicants respectfully submit that the combination of these references is improper and that claim 102 would not be obvious for one of ordinary skill in the art, at the time of the invention.

As discussed, Edgar fails to disclose a means for determining a threshold value, and more specifically, using a histogram to generate a threshold value. To remedy this deficiency, the Office Action points to Florent and posits that one skilled in the art would have combined the references and "that such a modification would have allowed for a system in which the threshold value was determined from the grey levels of the image." Applicants note, however, that "[i]t is improper to combine references where the references teach away from their combination." M.P.E.P. § 2145. The disclosure of Edgar is wholly directed towards "deriving

1022507 v1

from the medium separate images in the red, green, blue, and infrared portions of the

electromagnetic spectrum corresponding to the image stored therein." [col. 3, lines 47-50].

Edgar points out that "errors [due to the use of color] can be reduced to the point of

insignificance by applying matrix multiplication in a domain of selected non-linearity." [col. 12,

lines 40-45]. Accordingly, since Edgar teaches the use of a color system, rather than grayscale,

and states that the use of colors produces a level of error that is insignificant, a combination with

Florent would teach away from using the method in Edgar. Furthermore, the teachings of Edgar

would have deterred those of ordinary skill in the art from making the proposed combination,

since the use of color would result in an error that is insignificant.

The Office Action also has not properly pointed to any proper motivation to

combine Edgar with Florent. The Office Action notes that Edgar "discloses comparing infrared

image signal components to a threshold value, but it does not disclose a means for determining

the threshold value." The Office Action states that it "would have been obvious to one

reasonably skilled in the art at the time of the invention to modify Edgar's image reading

apparatus by calculating a threshold value on the basis of a generated histogram as taught by

Florent." The Office Action has not pointed to any motivation as to why one skilled in the art

looking at Edgar would look to Florent to generate a threshold value. The Office Action

discusses generally that the modification "would have decreased the uncertainty about the choice

of a threshold value and consequently allowed for more accurate detection." There is nothing

linking this more accurate detection, however, to the generation of a threshold value. In other

words, there is nothing which would lead one skilled in the art to look to Florent to create a

threshold value in order to have more accurate detection, because there is nothing to indicate the

desirability of even detecting a threshold value in a system such as Edgar.

Additionally, as discussed, the combination of Edgar and Florent does not disclose performing a process on segmented blocks. To remedy this deficiency, the Office Action points to Maeda and states that the "modification would have allowed for the accurate detection of image defects." Applicants note, however, that "[t]he mere fact that references <u>can</u> be combined or modified does not render the resultant combination obvious unless the prior art also suggest the desirability of the combination." M.P.E.P. § 2143. The Office Action does not point to anything in Maeda that links segmenting to increasing the detection accuracy of image defects. Further, as Edgar notes that "errors [due to the use of color] can be reduced to the point of insignificance," the Office Action has not shown any motivation as to why one skilled in the art would look to Maeda to improve detection accuracy. Additionally, there is nothing in either of these references to suggest that the creation of histograms on a plurality of blocks that have been segmented, as recited in claim 102, can even be accomplished. Applicants respectfully submit that, in the absence of the Applicant's disclosure, one of ordinary skill would not have made the proposed combination.

Accordingly, for at least all of the reasons discussed above, Applicants respectfully submit that claim 102 is in allowable condition. Additionally, since the Office Action does not point to any additionally basis for the rejections of claims 32 and 67, Applicants respectfully submit that these claims are also in allowable condition.

Regarding independent claim 106, the Examiner states that Edgar discloses a computer program product comprising a computer usable medium having computer readable code. However, based on arguments similar to those presented above regarding claim 102, Edgar, alone or in combination with Florent or Maeda, fails to disclose the computer program product recited in claim 106.

As claims 7-9, 22-25 and 107 depend from claim 32, claims 42-44, 57-60 and 108 depend from claim 67, claims 77-79, 92-95 and 109 depend from claim 102, and claim 110 depends from claim 106, these claims should also be in allowable form.

Accordingly, Applicants respectfully request withdrawal of the rejection applied to claims 7-9, 22-25, 32, 42-44, 57-60, 67, 77-79, 92-95, 102 and 106-110 under 35 U.S.C. § 103(a).

Dependent Claims

Applicants have not independently addressed the rejections of the dependent claims. Applicants submit that, in view of the amendments to the claims presented herein and, for at least similar reasons as to why the independent claims from which the dependent claims depend are believed allowable as discussed supra, the dependent claims are also allowable. Applicants however, reserve the right to address any individual rejections of the dependent claims should such be necessary or appropriate.

CONCLUSION

For the above-stated reasons, this application is respectfully asserted to be in condition for allowance. An early and favorable examination on the merits is requested. In the event that a telephone conference would facilitate the examination of this application in any way, the Examiner is invited to contact the undersigned at the number provided.

1022507 v1

AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may

be required for consideration of this Request to Deposit Account No. 13-4500, Order No. 1232-

4724.

In the event that an extension of time is required, or which may be required in

addition to that requested in a petition for an extension of time, the Commissioner is requested to

grant a petition for that extension of time which is required to make this response timely and is

hereby authorized to charge any fee for such an extension of time or credit any overpayment for

an extension of time to Deposit Account No. 13-4500, Order No. 1232-4724.

Respectfully submitted,
MORGAN & FINNEGAN, L.L.P.

Dated: October 18, 2006   By: _Scott Bittman_
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1022507 v1